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| 10/087,306 | 02/28/2002 | Lawrence Lam | PALM-3748.US.P | 2073 |

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WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

| EXAMINER | |
|---|---|
| LEFLORE, LAUREL E | |
| **ART UNIT** | **PAPER NUMBER** |
| 2673 | |

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/087,306 | LAM, LAWRENCE | |
| | Examiner | Art Unit | |
| | Laurel E LeFlore | 2673 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-14 and 16-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 is dependent on claim 15, which has been cancelled.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 16 recites the limitations "said elastic segment" in line 2, "said spring" in line 3 and "said plurality of hollow mid-segments" in lines 3-4 of the claim. There is insufficient antecedent basis for these limitation in the claim.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-14, 16 and 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu 5,584,195 in view of Moller et al. 5,889,512.

7. In regard to claims 1, 9 and 19, Liu discloses a pen comprising an elastic member and a plurality of interlocking mid-segments coupled to the elastic member between first and second end caps. See figures 9 and 15 and column 6, lines 55-57, disclosing, "There are a few free sections 58 for covering a spring 60 which provides elasticity". Note in figure 9 that the mid-segments (sections 58) are between first and second endcaps (32 and 64). See further mid-segments (element 38) in figures 3-8 and note the interlocking structure of the mid-segments depicted in figure 10. Note elements 38 in figures 3-8 are also between first and second endcaps and coupled (connected by a link) to the elastic member (within element 36).

Also note in figure 9 is depicted a first end cap tapered to a point (32) and coupled to the elastic member (as they are connected by a link) and a second end cap (64) also coupled (connected by a link) to the elastic member.

Liu further discloses that the plurality of mid-segments are hollow. See element 58 in figures 9 and 10. Element 58 is understood to be hollow because components 60 and 62 are within element 58, as shown in figure 15. Also note in figure 10 that element 38 is depicted and is hollow.

Liu does not disclose that the pen is a stylus for use with a touch screen having a digitizer. Thus, Liu does not disclose that the end cap of the pen is for interfacing with a digitizer.

Moller discloses a stylus for use with a touch screen having a digitizer, in which the end cap of the stylus interfaces with a digitizer. See column 3, lines 48-53, disclosing, "the present invention is well suited for...for example, a touch tablet for inputting strokes into a computer system". Moller teaches in column 2, lines 21-24, "A pen-based computer system is typically a small, hand-held computer where the primary method for inputting data includes a 'pen' or stylus." Muller further discloses in column 1, lines 54-58, "What is needed is a stylus for a portable computer or similar electrical apparatus which...can be stored compactly and yet is of sufficient size that it is comfortable to use."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Liu's pen by making it a stylus, as in the invention of Moller et al. One would have been motivated to make such a change based on the teaching of Moller that a stylus is a "pen". Thus, one would be motivated to use the design of a pen in making a stylus. Further, Moller teaches that "needed is a stylus for a portable computer or similar electrical apparatus which...can be stored compactly and yet is of sufficient size that it is comfortable to use", such as the pen of Liu.

8. Further in regard to claim 9, Moller discloses a portable electronic device comprising a processor, memory, and a touch sensitive display screen coupled to a bus, and a stylus. See column 1, lines 41-48, disclosing, "the invention will be described in connection with a portable pen-based computer system, such as a Newton PDA...the present invention is also suitable for other types of pen-based computers...in which input can be entered by contacting a stylus on a surface." A PDA and a computer

inherently contain a processor, memory and bus. Further see column 3, lines 63-65, disclosing, a display assembly suitable for use with the stylus of the present invention can be both an input and an output device." Further see column 4, line 13, disclosing an LCD and input membrane. Thus a touch sensitive display screen and stylus are disclosed.

9. Further in regard to claim 19, Liu discloses that the pen is bendable. See the figures.

10. In regard to claims 2, 10 and 20, Liu discloses that the mid-segments are operable to interlock with each other, the first end cap and the second end cap to form a rigid member. See column 7, lines 21-25, disclosing, "The detail structures of the sections 38 are best shown in FIG. 10. Each section has two different ends: a protrusive end 70 and a depressed end 72, which matches another protrusive end of the next section, so that all the sections 38 in a barrel are properly matched." Thus, the mid-segments are operable to interlock with each other. Note in figure 6 that the mid-segments interlock with the first end cap. Also note in figures 2, 9 and 15 that the mid-segments interlock with the second end cap 64 (of element 36).

11. In regard to claims 3, 11 and 21, Liu discloses in the figures that the pen is operable to become flexible when the first end cap is pulled away from the second end cap to disengage interlocking members of the mid-segments and the first and second end caps. Note in the figures that when the pen is depicted in its bent (flexible) state (such as in figures 3, 4, 6, and 10), the mid-segments are partially separated from each other, become a series of joints. Thus, the end caps are pulled away from each other

and the interlocking mid-segments are disengaged. In column 7, lines 35-45, Liu discloses a turning section 56 that is operated to "interchange between stiff and flexible". However, it is understood, that after using such turning section 56 to unlock the pen from its stiff state, it is the separation of the end caps and mid-segments, as depicted in the figures, that causes the pen to become flexible.

12. In regard to claims 4, 12, 22, Liu discloses that the elastic member is a spring. See rejection of claim 1.

13. In regard to claims 5, 13 and 23, Liu in view of Moller discloses an invention similar to that which is disclosed in claims 5, 13 and 23. Liu in view of Moller does not disclose that the elastic member covers the outside of the stylus.

However, Liu discloses in column 4, lines 32-, "Partially reinforced flexible barrel 34 is such a pen barrel that can be bent towards at least one side of the barrel freely, in order to form a circle or to stretch again into a straight pen. The flexibility, in this embodiment, results from sectionalization of the barrel; concretely, partially reinforced flexible barrel 34 comprises a plurality of rigid tubular sections 38a, and a reinforcing member 40a...The reinforcing member of material is flexible laterally but substantially rigid under longitudinal tension. Therefore the partially reinforced flexible barrel 34 has only one flexible side".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Liu by having the elastic member cover the outside of the stylus, like the reinforcing member 40a of Liu. One would have been motivated to make such a change in order to make the stylus flexible, as the reinforcing

member 40a gives the flexible barrel 34 "one flexible side". Further, there is no disclosed criticality of having the elastic member cover the outside of the stylus rather than be in the middle of the hollow mid-segments, and the elastic member covering the outside of the stylus is functionally equivalent to having the elastic member in the middle of the hollow mid-segments. Thus, having the elastic member be an internal spring or an external cover is a matter of design choice, as is any change in form or shape (In re Dailey, 149 USPQ 47 (CCPA 1976)) or shift in location of parts (In re Japikse, 86 USPQ 70 (CCPA 1950)).

14. In regard to claims 6 and 14, Liu discloses that the pen locks together by twisting the first end cap relative to the second end cap. See figure 9 and column 7, lines 49-51, disclosing, "turn the turning section 56 for another 180 degree...the pen becomes straight form". As turning section 56 is a component in the link between the fist and second end caps, it is understood the first and second end caps are twisted relative to each other with the twisting of turning section 56.

15. In regard to claim 7, Liu discloses that the plurality of mid-segments are hollow. See element 58 in figures 9 and 10. Element 58 is understood to be hollow because components 60 and 62 are within element 58, as shown in figure 15. Also note in figure 10 that element 38 is depicted and is hollow.

16. In regard to claims 8, 16 and 24, Liu discloses that the elastic member is a spring and the spring comprises hooks on both ends and is located inside the hollow mid-segments. See rejection of claim 1. Further see figure 15, depicting the spring 60 located inside the hollow mid-segments 58. While Liu does not disclose that the spring

comprises hooks on both ends, Liu discloses in figure 15 and column 6, lines 61-67, "Inside of the turning section 56, at least 2-3 snap-on points 66a are made near the base of the inner wall, for the head of spring 60 to click on. Another set of snap on points 66b are made on the base of spring support rod 62 for the tail of the spring to click on. Thus, with spring 60, and the connection means 36 is strung up an elastic piece as a whole." Spring hooks are inherently implied in this configuration, as both of the spring ends attach to snap on points. Also, note the above rejection of claim 16 under 35 USC 112, second paragraph.

17. In regard to claim 18, Moller discloses that the portable electronic device is a PDA. See rejection of claim 9.

18. In regard to claim 25, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 25. See figure 9 and the rejection of claim 1 disclosing that the elastic member is a spring 60. A spring is a tube. Liu in view of Moller does not disclose that the tube is clear. However, the color of the elastic member is a matter of routine design choice and there is no disclosed criticality of the elastic member being clear. Further, transparency is simply a design option and not part of the operability of the device, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have components with transparent properties for marketing or other non-functional options. In re Seid, 73 USPQ 431 (CCPA 1947), states "Matters relating to ornamentation only, and having no mechanical functions, cannot be relied on where claims are not directed to design but are structural claims".

19. In regard to claim 26, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 26. See the rejection of claim 1 for similarities. Liu in view of Moller does not disclose that one or more of the plurality of mid segments is a different color. However, the color of the mid segments is a matter of routine design choice and there is no disclosed criticality of the mid segments being different colors. Further, color is simply a design option and not part of the operability of the device, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to change color for marketing or other non-functional options. In re Seid, 73 USPQ 431 (CCPA 1947), states "Matters relating to ornamentation only, and having no mechanical functions, cannot be relied on where claims are not directed to design but are structural claims".

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu 5,584,195 in view of Moller 5,889,512 as applied to claims 9 and 10 above, and further in view of Brewer et al. 2003/0151982 A1.

21. In regard to claim 17, Liu in view of Moller discloses an invention similar to that which is disclosed in claim 17. See rejections of claims 9 and 10 for similarities. Liu in view of Moller does not disclose that the stylus can be stored simultaneously along more than one side of the portable electronic device.

Brewer discloses an invention in which a stylus can be stored along more than one side of a portable electronic device. See paragraph [0056], disclosing, "The stylus 1000 is made of a flexible material which will flex to match the curvature of the

watchband 1006 in which it is stored when the watch is being worn by the user." Further see the stylus stored around such a curve in figures 10 and 11.

Brewer further teaches in paragraph [0053], "Incorporating a touchscreen into a wearable device such as a wrist watch is not difficult, but on a wrist watch device there is little space to store a hard plastic stylus several inches in length. The following figures illustrate several innovative stylus concepts that provide user way of inputting information on the touchscreen, and styluses that can be integrated into the wearable device for storage when not in use."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Liu in view of Moller by having a stylus that can be simultaneously stored along more than one side of the portable electronic device, as in the invention of Brewer. One would have been motivated to make such a change based on the teaching of Brewer that such a stylus is useful for integrating into a device for storage when there is little space to store a hard plastic stylus several inches in length.

***Response to Arguments***

22. Applicant has amended the specification to overcome the previous objections to the specification of the paper dated 8 November 2004. Previous objections to the specification are withdrawn.

23. Applicant has cancelled claim 15, thus overcoming the objection to claim 15. However, claim 16, which remains in the application, is still dependent on claim 15.

24. Applicant's arguments filed 8 March 2005 have been fully considered but they are not persuasive.

25. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

26. Applicant argues, for example on page 10, that "using the pen of Liu on a touch screen would damage the screen and make the screen inoperable" and "Moller teaches away from the claimed limitations of the present invention by teaching a rigid stylus that is not elastic". However, the examiner points to the use of Moller to teach a stylus and the use of Liu to teach an elastic pen structure, as in the above rejections.

Therefore, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (571) 272-7672. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEL
5 May 2005

BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600